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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,595	10/15/2003	Hiroaki Watanabe	361752002400	1753
25227	7590	05/23/2006	EXAMINER	
MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 300 MCLEAN, VA 22102			NAKARANI, DHIRAJLAL S	
			ART UNIT	PAPER NUMBER
			1773	

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/684,595

Applicant(s)

WATANABE ET AL.

Examiner

D. S. Nakarani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15, 17-20, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-20, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. In view of the newly discovered reference to Mallory et al (U. S. Patent 6,723,431 B2), the finality of the rejection of the last Office Action mailed January 31, 2006 (Paper Number 20060109) is withdrawn. The rejection including newly discovered reference follow.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-5, 17-20, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murai et al (U. S. Patent 5,770,301) in view of Mallory et al (U. S. Patent 6,723,431 B2), Sawada et al (U. S. Patent 5,112,673), Lee et al 5,70,937) and Hofmeister et al (U. S. Patent 6,500,559 B2).

Murai et al a laminated film comprising a biaxially oriented substrate such as polyolefin, polyester, polyamide etc (Col.3, line 55 to col. 5, line 8), coated with barrier inorganic coating made of inorganic material such as metal or metal oxide (Col. 6, 35 to col. 7, line 27), and a barrier resin layer covering the barrier inorganic coating with barrier resin such as ethylene vinyl alcohol, polyamide, polyvinyl alcohol, vinylidene chloride copolymer etc (Col. 7, line 28 to col. 8, line 22). Murai et al also disclose a heat sealing layer over the barrier resin layer. The polymer for heat sealing layer includes anhydride modified polyolefin (Col. 10, line 56 to col. 11, line 20). Murai et al disclose oxygen gas permeability 0.01 to 3 cc/m<sup>2</sup>.24hr (Col. 10, lines 44-48 and Table 1,

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Example 9). Murai et al disclose that the light transmittance value of the base film layer can be selected as desired (Col. 4, lines 31-32). Murai et al disclose laminating further layer using adhesive resin (Example 10, and col. 11, lines 16-20). Murai et al fail to disclose claimed optical density of the base film, additional claimed barrier layer and an outer winding layer comprising antiblock component.

Mallory et al disclose a multilayer metallized barrier polyolefin film comprising biaxially oriented polyolefin substrate such as polypropylene metallized, polyvinyl alcohol coating the metal layer and heat sealing layer on the surface of the substrate opposite to the metallized surface of the substrate (Col. 3, line 65 to col. Col. 4, line 52, col. 5, line 40 to col. 6, line 2 and col. 12, lines 6-20). Mallory et al disclose optical density of the metallized film from about 1.5 to 3.0 (Col. 6, lines 3-6).

Sawada et al disclose a multilayer film having oxygen barrier properties. Sawada et al teach multiple oxygen barrier layers (Figure 9, Examples 15 and 16)). Sawada et al's adhesive layer a) is a urethane layer.

Lee et al teach bonding polyvinyl alcohol coated film to another film to form polyvinyl alcohol core of laminated film (Example 1).

Hofmeister et al disclose a multilayer barrier film made using adhesive such as polyurethane, blend of a polyolefin resin and a maleic anhydride modified adhesive resin (col. 8. line 35 to col. 10 line 15, ADH 3, ADH 4, ADH 6). Hofmeister et al also disclose addition of anti-blocking agent in the outer layer (MB1 MB2, MB 3 and MB5). Hofmeister et al disclose thicknesses of individual layers, which falls within claimed range.

Therefor it would have been obvious to a person of ordinary skill in the art at the time of this invention made to utilize disclosure of Mallory et al, Sawada et al, Lee et al and Hofmeister et al in the invention of Murai et al to make an oxygen impermeable multilayer laminate with multiple layers of barrier resins and bonding inorganic barrier layer coated polymer film using either EVOH or PVA as bonding resins and adding antiblock component to outer layer to prevent blocking. It would have been also obvious to a person of ordinary skill in the art at the time of this invention made to make film with desired transparency and/or opaque by adjusting thickness of the inorganic layer and/or adding pigment and/or filler to the base polyolefin layer for desired aesthetic appearance (See Murai et al, col. 4, lines 14-35 and Mallory et al col. 6, lines 3-6).

No claims are allowed.


4. Applicant's arguments with respect to claims 1-20, 24 and 25 have been considered but are moot in view of the new ground(s) of rejection.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**D. S. Nakarani**  
**Primary Examiner**  
**Art Unit 1773**

DSN  
May 19, 2006.